

Miniature Circuit Breakers		Residential buildings and infrastructure applications					Univ. current	Mechanical engineering and industrial requirements						
		5SL6	5SL4	5SJ6....-KS	5SY60	5SP3	5SY5	5SY6	5SY4	5SY4....-KK11	5SY7	5SY8	5SP4	5SJ4...HG...
														
Approvals														
Product standard		IEC/EN 60898-1	IEC/EN 60898-1	IEC/EN 60898-1	IEC/EN 60898-1	DIN VDE 0641-21	IEC/EN 60898-2	IEC/EN 60898-1	IEC/EN 60898-1	IEC/EN 60898-1	IEC/EN 60898-1	IEC/EN 60947-2	IEC/EN 60898-1	UL489, IEC/EN 60947-2
VDE	Germany, Europe	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓
CEBEC	Belgium	✓	✓	-	-	-	-	-	-	-	-	-	-	-
LCIE (NF)	France	-	-	-	✓	-	-	-	-	-	-	-	-	-
IMQ	Italy	✓	-	-	✓	-	-	✓	✓	-	✓	-	-	-
GOST	Russia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TR	Russia	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
 US	USA	-	-	-	-	-	-	✓	✓	-	✓	✓	✓	-
	USA, Canada	-	-	-	✓	-	-	✓	✓	-	✓	✓	-	-
	USA	-	-	-	✓	-	-	✓	✓	-	✓	✓	-	✓
 US	USA, Canada	-	-	-	-	-	-	-	-	-	-	-	-	✓
	China	-	-	-	✓	-	✓	✓	✓	-	✓	-	✓	✓
Marine classifications														
GL	Germany	-	-	-	-	-	-	✓ ¹⁾	✓ ¹⁾	-	✓ ¹⁾	-	✓	-
BV	France	-	-	-	-	-	-	✓ ²⁾	✓ ²⁾	-	✓	-	-	-
LRS	United Kingdom	-	-	-	-	-	-	✓ ^{1) 2)}	✓ ^{1) 2)}	-	✓ ¹⁾	-	✓	-
RINA	Italy	-	-	-	-	-	-	✓ ²⁾	✓ ²⁾	-	✓	-	-	-
DNV	Norway	-	-	-	-	-	-	✓ ²⁾	✓ ²⁾	-	✓	-	-	-
Switching capacity														
I_{cn} acc. to IEC/EN 60898-1 (kA AC)		6	10	6	6	-	10	6	10	10	15	-	10	10
I_{cn} acc. to IEC/EN 60898-2 (kA DC)		-	-	-	-	-	10	-	10	10	15	-	10	-
I_{cu} acc. to IEC/EN 60947-2 (kA AC)		6	10	-	-	-	10...35 ³⁾	10...35 ³⁾	10...35 ³⁾	10...35 ³⁾	15...50 ³⁾	20...70 ³⁾	10	15
acc. to UL1077 and CSA C22.2 No.235 (kA AC)		-	-	-	-	-	-	5	5	5	5	5	5	-
acc. to UL 489 and CSA C22.2 No. 5-02 (kA AC)		-	-	-	-	-	-	-	-	-	-	-	-	10/14 ³⁾
acc. to DIN VDE 0641-21		-	-	-	-	25	-	-	-	-	-	-	-	-
Operational voltage														
max. V DC/pole, acc. to EN 60898-1/-2 and EN 60947-2		60	60 ⁴⁾	60	72	-	250	72 ⁵⁾	72 ⁵⁾	72 ⁵⁾	72 ⁵⁾	72 ⁵⁾	72 ⁵⁾	60
max. V AC, acc. to EN 60898-1/-2 and EN 60947-2		250/440	250/440	250/440	250	-	250/440	250/440	250/440	250/440	250/440	250/440	250/440	250/440
max. V AC acc. to UL 1077 and CSA C22.2 No.235 – supplementary protection		-	-	-	-	-	-	480/277	480/277	480/277	480/277	480/277	480/277	-
Rated voltage V AC acc. to UL 489 – branch circuit protection		-	-	-	-	-	-	-	-	-	-	-	-	480/277
Harsh ambient conditions														
Shock acc. to IEC 60068-2-27 150m/s² at 11ms half-sine		-	-	-	-	-	✓	✓	✓	✓	✓	-	-	✓
Vibration resistance acc. to IEC 60068-2-6 50 m/s² at 25 ... 150 Hz and 60 m/s² at 35 Hz (4 sec)		-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓
Fire protection values acc. to EN 45545-2 (fire protection in rail vehicles)		-	-	-	-	-	-	-	-	✓	-	-	✓	-
Resistant to vibrations and shocks acc. EN 61373 and EN 50155 “1B” (railway technology)		-	-	-	-	-	-	-	-	✓	-	-	-	-
Ambient temperature -40 °C to +70 °C		-	-	-	-	-	-	-	-	✓	-	-	-	-
Pollution degree for overvoltage category		2/III	2/III	2/III	2/III	3/IV	3/III	3/III	3/III	3/III	3/III	3/III	3/III	3/III
Application areas														
Char. A – Semiconductor protection		-	-	-	-	-	-	✓	✓	-	-	-	-	-
Char. B – Mainly in residential building installations		✓	✓	✓	✓	-	✓	✓	✓	✓	✓	-	✓	✓
Char. C – Higher starting currents (e.g. lamps, motors)		✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
Char. D – Pulse-generating equipment (e.g. transformers, solenoid valves)		-	✓	-	-	-	-	-	✓	-	✓	✓	✓	✓
Char. E – Selective main miniature circuit breakers		-	-	-	-	✓	-	-	-	-	-	-	-	-
Other applications														
1+N in 1MW		-	-	-	✓	-	-	-	-	-	-	-	-	-
Plug-in terminals		-	-	✓	-	-	-	-	-	-	-	-	-	-
Selective main miniature circuit breakers		-	-	-	-	✓	-	-	-	-	-	-	-	-
Additional components														
Auxiliary contacts, fault signal contacts		✓	✓	-	✓	-	✓	✓	✓	✓	✓	✓	-	-
Shunt releases, undervoltage releases		-	✓	-	-	-	✓	✓	✓	✓	✓	✓	-	-
AFDD		-	✓	-	-	-	-	✓	✓	-	-	-	-	-
Additional components UL (...HG)		-	-	-	-	-	-	-	-	-	-	-	-	✓

¹⁾ without D char. ²⁾ In <= 63A ³⁾ For switching capacity: Detailed information is available in the Configuration Manual “Miniature Circuit Breakers” at: www.siemens.com/lowvoltage/manual ⁴⁾ Except C 0.3 ... 1A, D 0.3 ... 2A ⁵⁾ Except C 0.3 A and D 0.3 ...0.5A

Easy handling with high security

Highlights

- Busbar at the back for easy, continuous bus mounting and wiring
- Touch protection when grasping the device – exceeds VBG4/BGV A3 requirements
- Busbar assembly devices are replaced faster and with less effort



Clearly arranged connection of the supply line in front of the busbar.

More space and a better overview when mounting and connecting

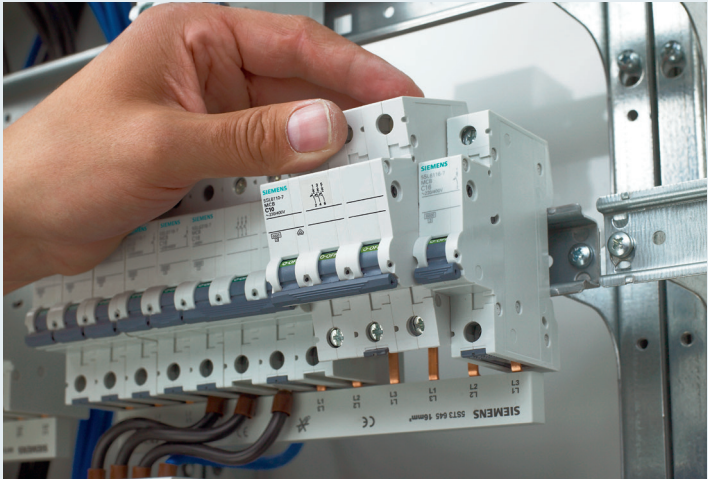
All miniature circuit breakers offer standardized mounting with one another. And the method is practical: The supply line is connected in front of the busbar. This enables you to see at all times what you are doing. The conductor connection is visible and controllable. What’s more, the busbar placed in the rear ensures a large wiring space between the device series. This allows you greater clearance when connecting the incoming and outgoing cables in the terminal.

Integrated touch protection

The 5SL and 5SY miniature circuit breakers not only secure electrical systems but also protect the operator by means of integrated, finger-safe terminal covers.

Device replacement at a moment’s notice

The devices can be removed without tools and easily from the standard mounting rail as well as from the bus-mounted busbar network.



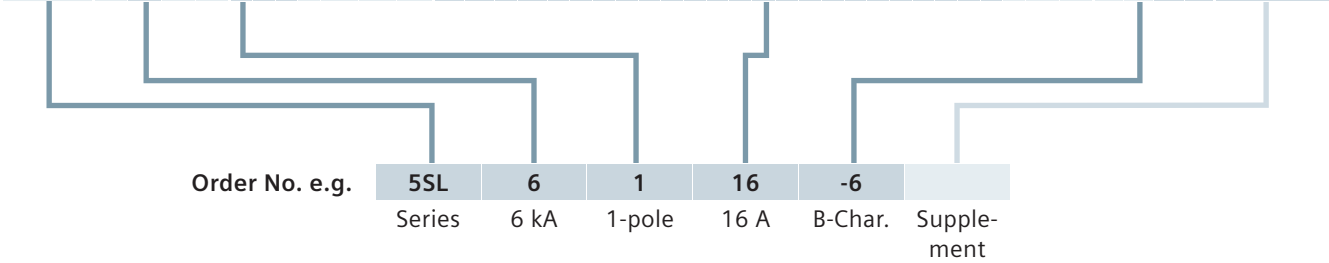
Exchanging a device without a tool thanks to latching slide with manual operation.

Clarity right along the line

The order number is systematically configured and provides information on the key features of the miniature circuit breakers: Series, rated switching capacity, number of poles, rated current and characteristics.

The table provides an overview as to the scope of the portfolio of miniature circuit breakers from Siemens.

Series	Rated switching capacity [kA]				Number of poles							Rated current [A]																											Charac-teristics			Supple-ment			
	6	10	15	25	1	2	3	4	1+N	1TE	3+N	0,3	0,5	1	1,6	2	3	4	5	6	8	10	13	15	16	20	25	30	32	35	40	45	50	60	63	80	100	125	A	B	C	D			
5SJ	6				1	2	3	4	5															10	13	16	20												-6	-7			KS ¹		
5SL	6				1	2	3	4	5		6										06	10	13	16	20	25	32	40	50	63									-6						
	6				1	2	3	4	5		6	14	05	01	15	02	03	04			06	08	10	13	16	20	25	32	40	50	63									-7					
5SY	6									0											06	10	13	16	20	25	32	40											-6				KL ^{2,4}		
	6									0											06	10	13	16	20	25	32	40											-6				KL ³		
	6									0											02	04	06	08	10	13	16	20	25	32	40									-7					
	6									0											02	04	06	08	10	13	16	20	25	32	40									-7					
5SY	4				1	2	3	4	5		6			01	15	02	03	04						06	08	10	13	16	20	25	32	40	50	63					-5						
	4				1	2	3	4	5		6												06	10	13	16	20	25	32	40	50	63						-6							
	4				1	2	3	4																														-6							
	4				1	2	3														11			18			30					45	60					-7							
	4				1	2	3	4	5		6	14	05	01	15	02	03	04			06	08	10	13	16	20	25	32	40	50	63	80						-7							
	4				1	2	3	4	5		6	14	05	01	15	02	03	04			06	08	10	13	16	20	25	32	40	50	63							-7							
	4				1	2	3	4	5		6	14	05	01	15	02	03	04			06	10	13	16	20	25	32	40	50	63							-6								
		7			1	2	3	4	5		6													06	10	13	16	20	25	32	40	50	63						-6						
			7		1	2	3	4	5		6	14	05	01	15	02	03	04			06	08	10	13	16	20	25	32	40	50	63							-7	-8						
				8 ¹	1	2	3	4	5		6	14	05	01	15	02	03	04			06	08	10	13	16	20	25	32	40	50	63							-7	-8						
	5 ²				1																		02	04	06	10	13	16	20	25	32	40	50	63					-6						
	5 ²				2																		06	10	13	16	20	25	32	40	50	63					-6								
	5 ²				1	2	4				14	05	01	15	02	03	04			06	08	10	13	16	20	25	32	40	50	63							-7								
5SP	4				1	2	3	4																														-6	-7						
	4				1	2	3	4																														-8							
	5 ²				1	2																																-7							
5SJ	4				1																			06	10	13	18	16	20	25	30	32	35	40	45	50	60	63			-6				HG40 ³
	4				1							14	05	01	15	02	03	04	11	06	08	10	13	18	16	20	25	30	32	35	40	45	50	60	63			-7	-8					HG40 ³	
	4				1	2	3					14	05	01	15	02	03	04	11	06	08	10	13	18	16	20	25	30	32	35	40	45	50	60	63			-7	-8					HG41 ³	
	4				1	2	3					14	05	01	15	02	03	04	11	06	08	10	13	18	16	20	25	30	32	35	40	45	50	60	63			-7	-8					HG42 ³	



¹ Series with a high rated switching capacity up to 70 kA according to EN 60947-2
² Universal current product range
³ KS = plug-in terminal on the outgoing side
⁴ KL = N pole on left-hand side
⁵ HG.. = approved according to UL489



Miniature Circuit Breakers Overview

SENTRON Protection, Switching, Measuring and Monitoring Devices

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